

### **REMARKS**

This communication responds to the Final Office Action mailed on August 8, 2008. No claims are amended, no claims are canceled, and no claims are added in this communication. As a result, claims 1-3, 6-10, 12-16, and 18-28 are now pending in this application.

#### **§103 Rejection of the Claims**

Claims 1, 2, 6, 7, 10, 12, 14-16, 18, 19, 22 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawanabe (U.S. 7,054,397) in view of Fattouche et al. (U.S. 6,266,014). Claims 3, 8, 9, 21 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawanabe and Fattouche et al. and further in view of Li et al. (U.S. 6,639,551). Claim 13 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawanabe and Fattouche et al. and further in view of Fernandes (U.S. 5,490,134). Claim 20 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawanabe and further in view of Linet et al. (U.S. 6,175,327). Claims 23, 26 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawanabe, Fattouche et al. and Li et al. and further in view of Casabona et al. (U.S. 5,782,540). Claim 27 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawanabe, Fattouche et al. and Li et al. and Casabona et al. and further in view of Fernandes.

The Applicant does not admit that these cited documents are prior art, and reserves the right to swear behind these documents in the future. In addition, since a *prima facie* case of obviousness has not been established as required by M.P.E.P. § 2142, the Applicant respectfully traverses this rejection under 35 USC § 103(a).

In the "Response to Arguments" part, on page 2, of the Office Action, the Office disagrees with the Applicant's argument, dated 11/27/2007, that Kawanabe fails to disclose a composite signal centered at a selected frequency of approximately zero cycles-per-second, as now claimed in amended independent claims 1, 12, 18 and 24.

In response to the Applicant's argument dated 11/27/2007, the Office asserts, "*With Fig.6A and Fig.6B, it is clear that the combined of the plurality of shifted signal is further shifted to a selected frequency, centered approximately at zero frequency (curve a of Fig.6B), at  $f_0$*

(curve *b* of Fig.6B), ...,  $n f_0$  (curve *c* of Fig.6B).” Specifically, on page 3, lines 13-14 of the Office Action, the Office asserts that Fig. 6B curve *a* of Kawanabe shows the frequency of the combined signal centered at zero after passing the filter 159. A close reading of Kawanabe reveals that this is incorrect.

The Applicant respectfully submits that the Office misunderstands Kawanabe, and submits that Fig. 6B curve *a* of Kawanabe does not show the frequency of the combined signal centered at zero frequency after passing the filter 159 as asserted by the Office. Fig. 6B of Kawanabe shows that the center of curve *a* and the center of curve *b* are spaced by  $f_0$ , but does not show that the center of curve *a* to be located at zero frequency. The location of the center of curve *a* of Fig. 6B at the origin of the frequency spectrum does not justify the conclusion by the Office conclusion that the center of curve *a* of Fig. 6B is at zero frequency, because Fig. 6B of Kawanabe is a frequency spectrum rather than a Cartesian coordinate system. That is, a frequency spectrum is not the same as a Cartesian coordinate system, and does not necessarily begin at zero frequency.

For at least this reason, the Applicant respectfully submits that Kawanabe does not disclose that a composite signal is centered at a selected frequency of approximately zero cycles-per-second, as now claimed in amended independent claims 1, 12, 18 and 24.

The addition of Fernandes, Li, Fernandes, Linet, or Casabona does not remedy this deficiency of Kawanabe. Thus, no combination of the cited references can teach the recited element of **a composite signal [that] is centered at a selected frequency of approximately zero cycles-per-second**, as claimed in amended independent claims 1, 12, 18 and 24. Thus, amended independent claims 1, 12, 18, and 24 are nonobvious.

All dependent claims are also nonobvious, since any claim depending from a nonobvious independent claim is also nonobvious. See M.P.E.P. § 2143.03. It is therefore respectfully requested that the rejections of claims 1-3, 6-10, 12-16, and 18-28 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

#### **RESERVATION OF RIGHTS**

In the interest of clarity and brevity, every assertion made in the Office Action may not have been addressed. Silence regarding any such assertion does not constitute any admission or

acquiescence. All rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference, are reserved. It is not admitted that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, timely objection is made to such reliance on Official Notice, and all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03, are reserved. All rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04, are likewise reserved.

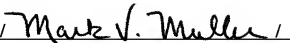
### **CONCLUSION**

The Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (210) 308-5677 to facilitate prosecution of this application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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